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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/048,119	06/10/2002	Reiner Gieck		1678

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BELL, BOYD & LLOYD, LLP
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EXAMINER

AGHDAM, FRESHTEH N

ART UNIT	PAPER NUMBER
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2611

MAIL DATE	DELIVERY MODE
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12/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/048,119

Applicant(s)

GIECK, REINER

Examiner

Freshteh N. Aghdam

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 10 is/are rejected.
- 7) ☒ Claim(s) 5-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 9/11/2007 have been fully considered but they are not persuasive.

Applicant's Argument(s):

Regarding claims 1-10, the applicant argues that the claimed invention is not taught or suggested by Goodson "determining and storing in a table at least one transmission method, with at least one transmission speed that represents a maximum data throughput rate for different line parameters." Rather, the system of Goodson tests the different transmission rates each time a communication is started.

Examiner's Response:

In response to the argument set forth above, the examiner disagrees with the applicant because Goodson discloses determining and storing in a table (e.g. a memory including at least a lookup table) at least one transmission method with at least one transmission speed that represents a maximum data throughput rate for different line parameters (col. 9, lines 42-67; col. 10, lines 1-8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodson et al (US 5,715,277).

As to claim 1, Goodson discloses a method of data transmission comprising: determining and storing in a table (e.g. in a memory including at least a lookup table) at least one transmission method, with at least one transmission speed (e.g. carrier frequency/ symbol rate) that represents a maximum data throughput rate (e.g. maximum bit rate) for different line parameters of a line (e.g. SDR value, line attenuation, and so forth); measuring line parameters of a line using at least one transmission method (e.g. probe signals L1 and L2); and selecting a transmission method having a transmission speed in which the measured line parameters are most compatible (Col. 9, lines 30-67, Col. 11, lines 36-67). Goodson does not expressly disclose determining and storing in a table at least one transmission method with at least one transmission speed that represents a maximum data throughput rate for different line parameters of lines. However, one of ordinary skill in the art would recognize that each modem (such as modems 100 and 101) may communicate with more than one other modems. Therefore, it would have been obvious to one of ordinary skill in the art to include more than one lookup table in memory, wherein each lookup table contains information of at least one transmission method with at least one transmission speed that represents a maximum data rate for different line parameters of lines in order to save space in said modem or reduce size of said modem.

As to claim 10, Goodson discloses determining in a test set up and storing in the table, a wide variety of transmission procedures and line properties at different frequencies and frequency ranges (Col. 2, lines 25-47).

Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodson et al, and further in view of BROTHERS (US 2002/0016794).

As to claim 2, Goodson discloses that the line parameters are represented by the attenuation of the line (Fig. 8, means 825). Goodson is not explicit about the line parameters are represented by the running time of the line and by interference signals on the line. BROTHERS discloses a communication method/ apparatus, wherein the line parameters are represented by the attenuation, interference, and running time of the line (Par. 19). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of BROTHERS with Goodson in order to more efficiently transmitting a signal by determining the line parameters responsive to the line attenuation, running time of the line and by interference signals on the line (Par. 19).

As to claim 4, Goodson discloses that the maximum data rate for different line parameters is determined with different transmission methods and transmission speeds, by selecting the transmission methods in the frequency range of which the line parameters demonstrate the least variations (Fig. 8, means 829 and 840; Col. 9, lines 30-67, Col. 11, lines 36-67). Goodson is not explicit about the line parameters are represented by the attenuation and running time of the line and by interference signals on the line. BROTHERS teaches that the line parameters are represented by the

attenuation, interference, and running time of the line (Par. 19). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of BROTHERS with Goodson in order to more efficiently transmitting a signal by determining the line parameters responsive to the line attenuation, running time of the line and by interference signals on the line (Par. 19).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goodson et al and BROTHERS, further in view of Zirwas (US 6,798,855).

As to claim 3, Goodson and BROTHERS teach all the subject matter claimed in claim 2, except for the running time being determined by a measurement of the phase difference between two signals with different frequencies. Zirwas teaches that the running time is determined by a measurement of the phase difference between two signals (Col. 7, Lines 30-35). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Zirwas with Goodson and BROTHERS in order to enhance signal transmissions by determining the running time from measuring the phase difference between two signals with different frequencies.

Allowable Subject Matter

Claims 5-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freshteh N. Aghdam whose telephone number is 571-272-6037. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Freshteh Aghdam
Examiner
Art Unit 2611

November 13, 2007


CHIEH M. FAN
SUPERVISORY PATENT EXAMINER